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Appl. No. 10/006,992
Amdt. under 37 CFR 1.116 Expedited Procedure Examining
Group 3739 ~ dated November 21, 2005
Reply to Office Action mailed August 24, 2005

PATENT**REMARKS/ARGUMENTS**

Claims 18-20 and 36-42 are pending in this rejection and stand substantively rejected. Claims 1-17 and 21-35 were previously canceled. Claims 43 and 44 are added by this Amendment. Reconsideration of the pending claims is respectfully requested. It is hoped that the issues in dispute will be overcome or that the issues for appeal will be simplified after the Examiner has had an opportunity to reconsider the claims.

New Claims

New claims 43 and 44 correspond to the claims of Group II as discussed in the Restriction Requirement mailed October 27, 2003. Support for these claims can be found in the application at, for example, page 14, lines 12-15. No new matter is introduced.

Rejection under 35 U.S.C. §103

Claims 18-20, 36-42 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent No. 6,563,105 to Seibel et al. ["Seibel"] in combination with U.S. Patent No. 6,280,435 to Odrich et al. ["Odrich"] and U.S. Patent No. 6,486,943 to Burns et al. ["Burns"]. This rejection is traversed.

According to MPEP 2143, a *prima facie* case of obviousness requires, among other things, that the references when combined must teach all claim elements, and that there must be some motivation, in the references themselves or in the knowledge generally available to the artisan, to combine the references. This test has not been met.

Presently pending claim 18 is drawn to a method for determining an accuracy of a gradient array in an optical tissue. The method includes the steps of transmitting an image through the optical tissue, determining local gradients of the array from the transmitted image, integrating along a closed integration path across a portion of the array, and determining the accuracy of the gradient array based on the integration.

1. All Claim Elements Not Taught or Suggested

Present claim 18 includes the step of determining the accuracy of the gradient array based on the integration. Advantageously, as noted in the specification at page 12, line 27

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to page 14, line 21, by performing the integration it is possible to detect and identify inaccuracies in the gradient array. The Office Action alleges that determining the accuracy of the gradient array is a necessary consequence of performing the integration. Applicants disagree, and note that the record is devoid of any established support whatsoever for this bald assertion. In fact, contrary to the Examiner's inherency argument, it is entirely possible to perform an integration without determining the accuracy of the array.

Thus, although Seibel describes a depth map based on integration of orientation values f and g , Seibel fails to teach or suggest the step of determining the accuracy of a gradient array based on the integration, and Odrich and Burns have not been shown to remedy this deficiency. In fact, Seibel teaches away from any step of determining accuracy. At col. 17, lines 31-36, Seibel advocates that noisy data should be swept under the table using optimization techniques, in order to recover smooth surfaces. Such disregard of noisy data is antithetical to the presently claimed method which involves an accuracy determination.

In general, Seibel describes ultrathin fiber optic endoscopy, wherein an object is illuminated with fiber, and data associated with reflected light is integrated to provide surface information. Seibel is reminiscent of U.S. Patent No. 6,011,625 to Glass, which was cited in a previous Office Action dated March 10, 2004 and similarly discusses an integration approach for characterizing surface information (e.g. terrain heights). Applicants submit that Seibel is no more relevant to the presently claimed invention than was Glass, and must be treated accordingly.

2. No Motivation To Combine References

Applicants submit that there is no motivation to combine the cited references as suggested by the Examiner. Page 3 of the Office Action states:

"It would have been obvious to employ the refractometer of Burns in the method of Odrich et al and to produce the contour data by the close integration path of Seibel et al, since Odrich et al discusses no method to produce the contour data required for the method, thus producing a method such as claimed."

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As Applicants understand the Examiner's argument, Odrich describes a surface refractometer for mapping corneal surface contours, but does not describe a method to produce the resulting contour data. The Examiner alleges the artisan would be motivated to use Seibel's integration method therefore to produce such surface contour data, but instead of using the Odrich surface refractometer, the artisan would allegedly be motivated to use the subsurface refractometer of Burns.

The Office Action does not state, however, why the artisan would be motivated in the first place to use the subsurface refractometer of Burns instead of the surface refractometer of Odrich. What is more, the Office Action does not explain why the artisan would be motivated to pick and choose different parts of the Burns reference. As Applicants understand the Examiner, the artisan would allegedly be motivated to use the subsurface refractometer of Burns, but disregard the various corresponding subsurface optical tissue analysis methods described by Burns (e.g. col. 9, line 37 to col. 16, line 6) and instead use the surface analysis methods described by Seibel. Yet the Office Action provides no explanation for the substitution.

As noted in MPEP 2142, the tendency to resort to hindsight reasoning is often difficult to avoid due to the nature of the examination process, but such reasoning must be avoided. Obviousness must be reached on the facts gleaned from the cited references alone, without the benefit of the Applicants disclosure.

Based on the above, Applicants submit that a *prima facie* case of obviousness has not been established. Withdrawal of this rejection is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

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If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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